



JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS Z 2507 : 2000

**Sintered metal bearing—
Determination of radial crushing
strength**

ICS 77.040.10; 77.160

Descriptors : metals, particulate materials, sintered products, bearings, lubricating oils, crushing tests, powder metallurgy

Reference number : JIS Z 2507 : 2000 (E)

Z 2507 : 2000

Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of International Trade and Industry through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law. Consequently **JIS Z 2507 : 1989** is replaced with **JIS Z 2507 : 2000**.

Date of Establishment: 1960-03-01

Date of Revision: 2000-03-20

Date of Public Notice in Official Gazette: 2000-03-21

Investigated by: Japanese Industrial Standards Committee
Divisional Council on Non-Ferrous Metals

JIS Z 2507:2000, First English edition published in 2001-03

Translated and published by: Japanese Standards Association
4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

© JSA 2001

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

Printed in Japan

Sintered metal bearing— Determination of radial crushing strength

Introduction This Japanese Industrial Standard has been prepared based on the first edition of **ISO 2739** *Sintered metal bushes—Determination of radial crushing strength* published in 1973 without modifying the technical contents.

The portions underlined with dots and sidelined are not specified in the corresponding International Standard.

1 Scope This Standard specifies a method of measuring the radial crushing strength of sintered metal parts in the form of hollow cylinders commonly known as bearings.

NOTE The International Standard corresponding to this Standard is as follows.

ISO 2739 : 1973 *Sintered metal bushes—Determination of radial crushing strength*

2 Normative reference The following standard contains provisions which, through reference in this Standard, constitute provisions of this Standard. The most recent edition of the standard indicated below shall be applied.

JIS Z 8401 *Guide to the rounding of numbers*

3 Field of application This method is applicable to sintered bearings composed of pure or alloyed metal powders.

4 Principle A hollow cylinder is submitted to a continuously increasing radial load until breakage occurs, provided that the deformation does not exceed 10 % of the diameter. The maximum load observed is used to calculate a value in relation to the dimensions of the hollow cylinder known as “radial crushing strength”.

5 Apparatus

5.1 Pressing apparatus which enables a radial load to be applied to a hollow cylinder.

5.2 Load-measuring device capable of giving the reading of the maximum value attained.

Informative reference : For the pressing apparatus and the load-measuring device, those specified in JIS B 7721 are preferable. The apparatus shall be installed on a rigid base, and the two pressurizing faces shall be parallel.

6 Test piece The test piece (see figure 1) is to be in the form of a sintered hollow cylinder (which may or may not be oil-impregnated), without flanges, notches, grooves, pronounced chamfers, drilled holes, oilways or keyways.

If necessary, the cylinder may be machined but, in this case, results obtained may differ from those obtained with a cylinder which has not been machined.